

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A network comprising:

IPsec processing apparatuses, which use an IPsec (Internet Protocol security protocol) for ~~encrypting and authenticating~~ securing security communications on ~~via the Internet between~~ path in the case where two different ~~two~~ centers ~~communicate via the Internet~~; and

an IPsec setting ~~server~~ apparatus, which manages IPsec settings of the said IPsec processing apparatuses,

wherein in response to receiving a request from a first IP processing apparatus to communicate with a second IPsec processing apparatus, the IPsec setting apparatus transmits a request to the second IPsec processing apparatus and upon receiving a reply to the request from the second IPsec processing apparatus the IPsec setting apparatus transmits a common encryption key to the first and second IPsec process apparatuses to be used to encrypt and authenticate IPsec communications between the first and second process apparatuses ~~said IPsec setting server apparatus includes means for collectively managing policies of said IPsec to be applied between first and second IPsec processing apparatuses;~~ and

~~wherein said IPsec setting server apparatus includes means for specifying policies of said IPsec to be applied between said first and second IPsec processing apparatuses based upon contents of a request message for communication between said first and second IPsec processing apparatuses received from said first IPsec processing apparatus.~~

2. (Cancelled)

3. (Currently Amended) The network ~~according to~~ of claim 1,

~~wherein said IPsec setting server apparatus includes means for, upon receiving the request message, transmitting a request startup message to said~~ the second IPsec processing apparatus, ~~which is an opposite party of communication of said first IPsec processing apparatus which has transmitted the request message, in order to cause said second~~

~~IPsec processing apparatus to transmit~~ transmits a request message for the communication message as a reply to the request received from the IPsec setting apparatus.

4. (Currently Amended) The network ~~according to~~ of claim ~~[[3]]~~ 1,

wherein ~~when there is no response from the second IPsec to the request from the IPsec setting apparatus the said IPsec setting server apparatus includes means for, when there is no response to the request startup message, notifying said~~ notifies the first IPsec processing apparatus that there is no response from said second IPsec processing apparatus.

5. (Currently Amended) The network ~~according to~~ of claim 1,

wherein said IPsec setting ~~server~~ apparatus ~~includes means for generating~~ generates SA (Security Association) parameters, ~~to be required~~ used in the IPsec communication ~~between the first and the second IPsec processing apparatuses, from based on the contents of the request message and contents of the IPsec policies stored by the IPsec setting apparatus of said IPsec to be applied to the communication.~~

6. (Currently Amended) The network ~~according to~~ of claim 1,

wherein said IPsec setting ~~server~~ apparatus ~~includes means for sending~~ sends a distribution message including ~~at least~~ the policies of said IPsec and the SA parameters in response to the request message.

7. (Currently Amended) The network ~~according to~~ of claim 1,

wherein said IPsec setting ~~server~~ apparatus ~~includes means for generating a~~ generates the common secret encryption key to be used in encryption and authentication of ~~the said IPsec communications between the first IPsec processing apparatus and the second IPsec processing apparatus and means for distributing~~ transmits the generated common ~~secret~~encryption key to ~~the~~ said IPsec processing apparatus.

8. (Currently Amended) An IPsec setting ~~server~~ apparatus managing

IPsec setting of IPsec processing apparatuses, which use an IPsec (Internet Protocol security protocol) for securing security communication on ~~via~~ the Internet ~~path in the case where between two different two centers communicate via the Internet,~~

wherein said IPsec setting ~~server~~ apparatus ~~includes means for collectively managing~~ manages IPsec policies of said IPsec to be applied among said the IPsec processing apparatuses, and

wherein said IPsec setting ~~server~~ apparatus ~~includes means for specifying~~ specifies the IPsec policies of said IPsec to be applied between an a first IPsec processing apparatus, requesting communication with a second IPsec processing apparatus, and another the second IPsec processing apparatus based upon contents of a the request message to the IPsec setting apparatus from the first IPsec processing apparatus for communication between said with the second IPsec processing apparatus and another IPsec processing apparatus received from said IPsec processing apparatus.

9. (Cancelled)

10. (Currently Amended) The IPsec setting ~~server~~ apparatus ~~according to~~ of claim 8,

wherein said IPsec setting ~~server~~ apparatus ~~includes means for,~~ upon receiving the request message from the first IPsec processing apparatus, transmitting transmits a request startup message to an the second IPsec processing apparatus, which is an opposite party of communication of the firstan IPsec processing apparatus which has transmitted the request message, in order to cause said the second IPsec processing apparatus of the opposite party of communication to transmit a request message for the communication.

11. (Currently Amended) The IPsec setting ~~server~~ apparatus ~~according to~~ of claim 10,

wherein said ~~the~~ IPsec setting ~~server~~ apparatus ~~includes means for,~~ when there is no response to the request startup message from the second IPsec processing apparatus, notifying notifies said the first IPsec processing apparatus which has transmitted the request message that there is no response from said the second IPsec processing apparatus of the opposite party of communication.

12. (Currently Amended) The IPsec setting ~~server~~ apparatus ~~according to~~ of claim 8,

wherein said IPsec setting ~~server~~ apparatus ~~includes means for generating~~ generates SA (Security Association) parameters to be required used in the IPsec

~~communication between the first IPsec processing apparatus and the second IPsec processing apparatus from~~ based upon the contents of the request message and contents of the IPsec policies of said stored by the IPsec setting apparatus to be applied to the communication.

13. (Currently Amended) The IPsec setting ~~server~~ apparatus ~~according to~~ claim 8,

~~wherein said IPsec setting server apparatus includes means for transmitting simultaneously transmits to the first IPsec processing apparatus and to the second IPsec processing apparatus a distribution message including at least the policies of said IPsec and the SA parameters for IPsec communication between the first IPsec processing apparatus and the second IPsec processing apparatus in response to the request message.~~

14. (Currently Amended) The IPsec setting ~~server~~ apparatus ~~according to~~ claim 8,

~~wherein said IPsec setting server apparatus includes means for generating generates a common secret encryption key to be used in encryption and authentication of said IPsec communication and a function for distributing distributes the generated common secret encryption key to said the first and second IPsec processing apparatus apparatuses.~~

15. (Currently Amended) An IPsec processing apparatus using an IPsec (Internet Protocol security protocol) on the Internet,

~~wherein said IPsec processing apparatus includes means for, upon receiving receives from an IPsec setting apparatus managing communication a packet to which said containing the IPsec should to be applied to communications with another IPsec processing apparatus, judging determines whether or not to inquire request from the IPsec setting apparatus a setting for said IPsec communication to be collectively managed in an IPsec setting server apparatus from said IPsec setting server apparatus, and~~

~~wherein said the IPsec processing apparatus includes means for transmitting transmits a request message for communication with another the other IPsec processing apparatus to said the IPsec setting server apparatus in order to acquire receive from the IPsec setting apparatus a setting for said IPsec communication.~~

16. (Cancelled)

17. (Currently Amended) The IPsec processing apparatus ~~according to~~ of claim 15,

wherein, upon receiving a request startup message from an IPsec setting apparatus ~~for causing said the IPsec processing apparatus to transmit~~ transmits the a request for communication with another IPsec processing apparatus to the IPsec setting apparatus. ~~message from said IPsec setting server apparatus, said IPsec processing apparatus transmits the request message.~~

18. (Currently Amended) The IPsec processing apparatus ~~according to~~ of claim 15,

wherein said IPsec processing apparatus includes means for setting an SPD (Security Processing Database), in which policies for applying said IPsec is recorded, and an SAD (Security Association Database), in which an SA (security Association) necessary for subjecting an individual ~~kind of~~ communication to the IPsec processing of said IPsec is stored, based upon a ~~distribution~~ message received from ~~said the~~ IPsec setting server apparatus.

19. (Currently Amended) The IPsec processing apparatus ~~according to~~ of claim 15,

wherein said IPsec processing apparatus ~~includes means for acquiring~~ receives from the IPsec setting apparatus a common secret encryption key to be used in encryption and authentication of said IPsec communication ~~from said IPsec setting server apparatus.~~

20. (Currently Amended) The IPsec processing apparatus ~~according to~~ of claim 15,

wherein ~~said the~~ IPsec processing apparatus ~~includes means for retransmitting~~ retransmits the request message for communication to said the IPsec setting server apparatus and acquiring receives new setting information before a term of validity of for the SA expires.

21. (Currently Amended) An IPsec setting method ~~for a network which comprises~~ comprising:

receiving from a first IPsec processing apparatus a request for communication with a second IPsec processing apparatus;

in response to the received request, sending a request to the second IPsec processing apparatus,

receiving a reply to the sent request from the second IPsec processing apparatus,

in response to the reply from the second IPsec processing apparatus, retrieving IPsec policy rules from memory and generating IPsec settings parameters based on the content of the request from the first IPsec processing apparatus and the retrieved policy rules; and

transmitting the generated IPsec settings to the first and second IPsec processing apparatuses

~~IPsec processing apparatuses, which use an IPsec (Internet Protocol security protocol) for securing security on the Internet path in the case where different two centers communicate via the Internet; and an IPsec setting server apparatus, which manages IPsec settings of said IPsec processing apparatuses;~~

~~wherein said IPsec setting server apparatus includes a step of collectively managing policies of said IPsec to be applied among said IPsec processing apparatuses, and~~

~~wherein said IPsec setting server apparatus includes a step of specifying policies of said IPsec to be applied between an IPsec processing apparatus and another IPsec processing apparatus based upon contents of a request message for communication between said IPsec processing apparatus and another IPsec processing apparatus received from said IPsec processing apparatus.~~

22. (Cancelled)

23. (Currently Amended) The IPsec setting method according to of claim 21,

~~wherein said IPsec setting server apparatus includes a step of, upon receiving the request message, sending a the request sent to the second IPsec is a startup message to an IPsec processing apparatus, which is an opposite party of communication of an IPsec processing apparatus which has transmitted the request message, in order to cause said IPsec processing apparatus of the opposite party of communication to transmit and the reply received from the second IPsec is a request message for the communication.~~

24. (Currently Amended) The IPsec setting method ~~according to~~of claim ~~[[23]]~~ 21,

~~wherein said IPsec setting server apparatus includes a step of, when there is no response reply to the request startup message sent to the second IPsec processing apparatus, notifying said the first IPsec processing apparatus which has transmitted the request message that there is no response from said the second IPsec processing apparatus of the opposite party of communication.~~

25. (Currently Amended) The IPsec setting method ~~according to~~of claim 21,

~~wherein said IPsec setting server apparatus includes a step of~~further including in response to a reply from the second IPsec processing apparatus, generating SA (Security Association) parameters to be required used in the IPsec communication between the first and second IPsec processing apparatuses from based on contents of the request from the first IPsec processing apparatus message and contents of the retrieved policies policy rules of said IPsec to be applied to the communication.

26. (Currently Amended) The IPsec setting method ~~according to~~of claim 21,

~~wherein said IPsec setting server apparatus includes a step of~~further comprising transmitting a distribution message including at least the retrieved policies of said IPsec and the generated SA parameters in response to receiving the request message.

27. (Currently Amended) The IPsec setting method ~~according to~~of claim 21,

~~wherein said IPsec setting server apparatus includes a step of~~further comprising, generating a common secret encryption key to be used in encryption and authentication of said IPsec communication between the first and second IPsec processing apparatuses and transmitting the generated encryption key to first and second IPsec processing apparatuses and a step of distributing the generated common secret key to said IPsec processing apparatus.

28. (Currently Amended) The IPsec setting method ~~according to~~of claim 21,

~~Wherein further comprising, upon receiving at one of the first and second IPsec processing apparatuses a packet communication to which said an IPsec should be applied, said the IPsec processing apparatus judges determines whether or not to inquire request a an IPsec setting for said IPsec to be collectively managed in an IPsec setting server apparatus from said IPsec setting server apparatus from an IPsec setting apparatus.~~

29. (Currently Amended) The IPsec setting method ~~according to~~ of claim 21,

wherein said ~~the first~~ IPsec processing apparatus transmits a request message for communication with ~~another the second~~ IPsec processing apparatus to said ~~an~~ IPsec setting server apparatus in order to acquire a setting for said ~~the~~ IPsec to be used during the communication.

30. (Currently Amended) The IPsec setting method ~~according to~~ of claim ~~[[21]]~~ 26,

wherein said ~~the~~ IPsec processing apparatus ~~apparatuses~~ store the retrived policies transmitted in the distribution message in ~~sets an a~~ respective SPD, and store the SA parameters transmitted in the distribution message in a respective ~~in which~~ policies for applying said IPsec is recorded, and an SAD, in which an SA (Security Association) necessary for subjecting an individual kind of communication to processing of said IPsec, based upon a distribution message received from said IPsec setting server apparatus.

31. (Canceled).

32. (Currently Amended) The IPsec setting method ~~according to~~ of claim 21,

~~wherein said further comprising receiving a second request from the first IPsec processing apparatus for communication with the second IPsec processing apparatus before a term of the validity of an SA expires and in response generating and transmitting new IPsec setting to the first and second IPsec processing apparatuses resends the request message to said IPsec setting server apparatus and acquires new setting information before a term of validity of the SA expires.~~